

Kangley-Echo Lake Transmission Line Project DEIS

Appendix B – Final Wildlife Technical Report

Comments from Seattle Public Utilities
September 4, 2001

DEIS Appendix citations in italics; SPU comments in normal font.

The term “conversion” rather than “alteration” is traditionally preferred when referring to converting one habitat type to another, either permanently or temporarily.

1.1.1.2 Clearing

“A clearing advisory would be generated...”

An example of how the clearing advisory would work is essential to understanding how variable the area of clearing outside the ROW will be.

“Merchantable timber purchased from private owners would be marketed and non-merchantable timber would be left lopped and scattered, piled, chipped, or would be taken off-site. Non-merchantable timber may or may not be burned because of air quality constraints... Additional best management practices (BMPs) for timberland would also be used... The total amount of clearing required for this project is unknown at this time... An additional amount of land would be cleared for roads that are needed off the ROW and for roads determined to be in poor condition and requiring upgrading by BPA.”

SPU is not able to comment on this effectively because insufficient information is presented. How will the merchantable timber be valued, especially in light of the goals of the Cedar River Watershed (CRW) Habitat Conservation Plan (HCP)? That is, the value of the trees to SPU is not so much in their value as timber but in the habitat and water quality functions they provide. The DEIS and technical appendix should indicate how SPU will be compensated for the habitat and water quality values of the harvested trees and the associated opportunity costs that SPU will incur for this lost habitat over the lifespan of BPA's constructed proposed action. The DEIS and its technical appendices need to present a complete and consistent description of the proposed action.

Also, the DEIS and technical appendix need to commit to regarding the disposition of non-merchantable: is it going to be left or taken, burned or not? The DEIS and technical appendix should describe the BMPs that will be implemented.

The DEIS and technical appendix should present firm estimates of the amount of land to be cleared and where clearing will occur. As evidenced by information presented in the project's BA, BPA has sufficiently engineered the proposed action such that locations for towers and new roads have been identified. BPA should thus be able (in the DEIS and its technical appendices) to firmly estimate the total amount of clearing for the proposed action. The DEIS and the technical appendix need to present a complete and accurate environmental analysis, which includes the disclosure of such known project characteristics.

Also, the DEIS and technical appendix should state that merchantable timber would be purchased from landowners, subject to landowner approval, and should not be stated as an absolute. Some landowners may wish to retain the logs.

“... all trees, bush and snags would be felled and stumps over 22” would be removed, including their root systems.”

The DEIS and technical appendix should describe how far beyond the footprint of the tower will this extensive clearing extend.

1.1.1.3 Access Road Construction

"Clearing and construction activities for new access roads would disturb an area about 20' wide..."

If the road itself is 20 feet wide, the disturbed area will extend beyond this. The DEIS and technical appendix should clearly indicate if this 20' is in addition to the road itself.

"...the roadbed would be repaired and reseeded as necessary."

The DEIS and technical appendix should specify that only native species would be used for revegetation activities in the CRW.

1.1.1.3 Storage, Assembly, and Refueling Areas

"...establish storage areas..."

The DEIS and technical appendix should address the locations for these facilities as well as related clearing/land-disturbance impacts, their adjacency to sensitive areas, and containment and fire safety design. The DEIS provides no descriptions or specifications for refueling or hazardous materials storage areas, which prevents effective review of the proposed action.

All refueling and hazardous material usage/storage facilities would be required by SPU to be outside CRW boundary. To protect the municipal water supply, SPU has "no-tolerance" objectives for spills or leaks of hazardous materials in the CRW. The DEIS and technical appendix should indicate how all spills would be prevented in the CRW.

1.1.1.5 Tower Site Preparation

"These disturbances could be as large as 370 ft radius..."

It is confusing to switch from an average reported total area of 30,000 square feet to a maximum radius of 370 ft, which is equivalent to 430,085 square feet. Total area should be reported in all cases so reviewers can effectively evaluate the actual impact.

"...remove selected trees in a 50-60 foot wide area on each side of the ROW."

This is inconsistent with the statements in Appendix C that a 75 ft removal zone would be used. The DEIS and its technical appendices need to present a complete and consistent description of the proposed action.

1.1.1.6 Tower Construction

"... helicopter tower erection could be used if access was not available or if sensitive resources would be encountered."

The DEIS and the technical appendix should define "sensitive resources." Is this the same as sensitive species?

1.1.1.9 Site Restoration and Clean-up

"Disturbed areas would be reseeded with grass or an appropriate seed mixture to prevent erosion."

The DEIS and technical appendix should commit to using seed mixtures free of non-native and noxious species.

"The seed mixture would include native plant species and would be free of noxious weeds."

The DEIS and technical appendix should commit to using mixtures made entirely of native plant species, not an unspecified proportion of native species.

1.2.2 Habitat Fragmentation

"Construction of the proposed project would require varying amounts of vegetation clearing, depending upon the alternative selected. This would result in the removal of habitat or potential habitat for many species, potential alteration of habitat conditions for wildlife species, and possibly habitat fragmentation, increasing the amount of edge habitat within the project area."

Habitat fragmentation is only a part of habitat loss, which is generally ignored by this section (1.2 Key Issues for Wildlife). The preferred alternative will generally result in little increase in habitat fragmentation, but will result in significant habitat loss. The DEIS and technical appendix need to distinguish those components of the project that will cause habitat loss (ROW clearing; substation construction, road-building, etc.) from those that will cause habitat fragmentation (road-building, etc.) and firmly estimate the areas of habitat loss and level of new habitat fragmentation.

1.3 Major Conclusions

"Because the project area is not known to be a high use area for listed species, the probability of mortality of listed species from collision or electrocution should be low."

The DEIS and technical appendix fail to supply data or references to support this statement. The project area (within 0.25 mile of ROW) is not an appropriate size to measure impacts to most raptor species, which typically have large home ranges. An unvalidated sighting of a northern spotted owl recently occurred near Rattlesnake Ridge, which also provides nesting habitat for peregrine falcons. The DEIS and technical report should provide data that supports this statement.

2.1 Data Sources and Study Methods

"Field visits occurred on..."

The DEIS and technical appendix should describe the field methodology, including what data were collected.

2.2 Agencies Contacted

None of the private landowners along the ROW were contacted.

3.2 Regional Context

"The CRW is owned by the City of Seattle and is subject to Washington State law and the policies of the Seattle City Council, as well as provisions for managing lands in the watershed acquired from the federal government. An HCP has recently been signed that governs the management of the watershed for the next 50 years."

The DEIS and technical appendix fail to mention that the primary management goal of the CRW is water quality and water production for the City of Seattle. The DEIS and technical appendix should explicitly state that the proposed action is inconsistent with the CRW HCP.

3.3 Study Area and Approach

"Wildlife species and their habitats...are discussed at two levels..."

The DEIS and technical appendix state that the broad project vicinity will be discussed to address issues related to wide-ranging species, migratory species, and species with large home ranges. However, other than a general description of the area, there was no discussion of the impacts of the project on wide-ranging species, migratory species, and species with large home ranges and their habitats. The DEIS and technical appendix should include this analysis.

"The project area addressed in a more focused manner includes only the area within 0.25 mi. of the proposed transmission line ROWs."

A project area of 0.25 mile from the ROW is too small for the scale of home range sizes and dispersal capabilities of many wildlife species of concern (e.g. spotted owl, pileated woodpecker, northern goshawk, marten, fisher...). The DEIS and technical appendix should include a discussion of the fact that edge effects from the ROW will extend into the surrounding forest for at least 200 m. This should be considered in mitigation for removal of late successional habitat.

"Within the ROWs, the predominant vegetation type is early seral in mid to late coniferous forest."

The DEIS and technical appendix should describe what this means.

3.3.1 Wildlife Habitats Within the Project Area

"Coniferous forest – late... CFL... Late seral second- or third-growth coniferous forest. Reaching a mature stage but not considered late-successional habitat."

The DEIS and technical appendix should describe the difference between seral and successional. There is 50-80 year old coniferous forest along much of the ROW in the CRW, which could be defined as mid-seral, mid-successional, or mature.

3.3.2 Species to be Analyzed

"For the purpose of this document, species that are federally-listed as threatened or endangered; federal species of concern; and Washington State listed threatened, endangered, sensitive or monitor species with the potential to occur on the west side of the Cascade Mountains were selected for analysis."

The DEIS and technical appendix should address all species listed in the CRW HCP.

3.3.2.1 Forest Community Dependent Species

"An historic spotted owl sighting occurred on lands owned by the Weyerhaeuser Company. This single owl reported in 1993 was over 0.5 mi. from the proposed Alternative 3 ROW and, therefore, was not within the project area."

Spotted owls have designated home ranges in the northwest Cascade province of 1.8 miles from an activity center. The 0.5 mile threshold specified here is not appropriate. An unvalidated but reliable spotted owl sighting also occurred near Rattlesnake Lake in early 2001.

"Northern goshawks, ...pileated woodpeckers, and Vaux's swifts are also unlikely to nest within the project area."

Though these species are known to nest in late-seral forest, specific habitat requirements for these species may occur in the proposed ROW. Goshawks are known to nest in stands with >15' dbh trees; pileated woodpeckers nest in snags >20" dbh; and swifts nest in hollow trees >20" dbh. There are likely trees/stands with these characteristics along the ROW. The DEIS and technical appendix should include an analysis that considers there will be nesting habitat in CRW in the project area in the future, and that the ROW project will significantly impact that habitat.

"Bats...associated with LS or OG forest, this habitat type is not expected to occur in the project area."

This habitat will occur in CRW in the project area under the HCP; the DEIS and technical appendix need to acknowledge and consider this circumstance.

"...project area does not contain suitable nesting habitat for bald eagles."

The DEIS and technical appendix should acknowledge suitable habitat will develop in the CRW under the HCP, and should discuss the possibility.

Table 3. Species with Federal or State Status Not Expected to Occur within the Proposed Project Area

Habitats for the marbled murrelet, Canada lynx, Johnson's hairstreak, grizzly bear, and gray wolf (along with many other species) may occur in the project area in the CRW in the future.

Table 3: Peregrine falcon is not expected to occur in project area because of lack of suitable nesting and foraging habitat.

There is suitable nesting habitat for peregrine falcon within the lower CRW, and the project area is within the home range and would provide foraging habitat. This wide-ranging species with a large home range should be included in the DEIS and technical appendix discussions, especially considering the issue of raptors and electrocution on powerlines.

Table 3: Golden eagle is not expected to occur in project area (no reason given)

The DEIS quotes a reference which states that eagles have been observed foraging in clearcuts at moderate elevation west of the Cascade crest, so it is unclear why they eliminated this species from consideration. Further data should be provided, or the species should be included in the analysis.

"Because these characteristics are usually associated with late-successional or old-growth forest, this habitat type is not expected to occur in the project area."

Facilitation of these habitats is a primary goal of the CRW HCP. Though these conditions do not currently exist along the ROW, they likely will in the future. The DEIS and technical appendix should consider this.

3.3.2.3 Aquatic Community Dependent Species

"Cascades frog is found... above 2,600 ft in elevation..."

This species was found as low as 1,600 ft. elevation in the CRW. The DEIS and technical appendix analysis should be adjusted accordingly.

4.1.1 Alternative Transmission Line Impacts

...assuming that a 150 ft ROW is cleared....

This assumption is inconsistent with information provided in sections 1.1.1.2 and 1.1.1.5. This analysis also fails to consider impacts associated with clearing new (temporary and permanent) roads and staging areas, as well as short- and long-term impacts of the 50 ft temporary construction easement previously mentioned by BPA (but not mentioned in the DEIS). SPU believes Table 5 significantly underestimates habitat impacts. The DEIS, its technical appendices, and associated permitting documents need to present a complete, accurate, and consistent description of the proposed action.

4.1.1.1 Impacts

The DEIS and technical appendix should include a discussion of the impact of exposure to electric and magnetic fields (EMF) and the risk of decreased immune response for limited-mobility species, especially amphibians.

"Disturbance of Wildlife – Noise from blasting would...result in a low-level impact."

Blasting could result in moderate level impact if blasting is done during breeding season near a nest or den site. The DEIS and technical appendix need to discuss the impacts of blasting and other construction activity (and resulting noise and dust).

"Habitat Fragmentation—Under all of the alternatives, the amount of habitat fragmentation within the project vicinity would increase, resulting in a moderate-level impact. Fragmentation would lead to an increased amount of edge habitat in the area."

Habitat fragmentation is included here, when it should be a subset of habitat loss. Additional forest fragmentation under the preferred alternative would be small; however, habitat loss would be significant.

4.1.1.2 Mitigation Common to all Alternatives

The DEIS and technical appendix should consider all species included in the CRW HCP and should commit to compensatory mitigation designed to offset habitat loss for these species.

Most impacts were described in Section 4.1.1.1 as moderate or high, yet the mitigation proposals are primarily minimizations of impact. This is not adequate mitigation for the moderate/high impacts of permanent loss of habitat, permanent habitat fragmentation, mortality, and disturbance. The DEIS and technical appendix should acknowledge this and commit to mitigation actions that include compensatory mitigation, such as creation and protection of equivalent quality habitat of greater area than that lost due to construction of the proposed action. This needs to be habitat that would not already have occurred and/or been protected.

The fact that high quality low elevation late successional (LS) habitat will be created in CRW under HCP, and that the ROW will permanently fragment this large block of habitat needs to be addressed by the DEIS and technical appendix. Mitigation such as leaving corridors of trees maintained at a specified height through the ROW should be addressed.

Impacts on Threatened, Endangered and other Sensitive Species

Proposed mitigation would appear to be ineffective for mitigating impacts to species associated with forested and wetland/riparian habitats. Anticipated impacts will only benefit early seral-associated species.

The DEIS and technical appendix fail to include creating and leaving snags of acceptable height in cleared zones of forested riparian and wetland areas. The DEIS and technical appendix should commit to ensuring all pertinent plans would meet and be conducted by SPU standards and approval for those portions of the project constructed in the CRW.

Minimizing forest vegetation clearing is not adequate mitigation for forest habitat conversion to early successional habitat. The DEIS and technical appendix should acknowledge this and commit to compensatory mitigation that effectively offsets habitat conversion.

Commercial (or ecological) thinning will also need to be conducted. The DEIS needs to include specifics on how this would be accomplished. For example, will BPA pay for thinning on adjacent lands? How many acres? Located where?

Reviewers of the DEIS and this technical appendix need targets for coarse woody debris density (including diameter and decay class) to effectively evaluate the efficacy of this proposal. The species for which this will provide mitigation need to be included in the DEIS and technical appendix.

Habitat Fragmentation

Clearing only as much vegetation as necessary does not compensate for the habitat fragmentation created by construction of new ROW, roads, and substation—especially considering the major fragmentation the ROW will create in low elevation late successional forest in CRW in the future. The DEIS and technical appendix should acknowledge this and commit to appropriate compensatory mitigation.

Leaving coarse woody debris is unlikely to address connectivity issues for most species. Even for those species that use coarse woody debris, the microclimatic differences between a closed canopy forest environment and an open environment may prevent use. The DEIS needs to add specifics as to exactly which species will be helped by this proposal.

Leaving some areas intact will be inadequate to mitigate for the fragmentation the proposed action will create. Specific compensatory mitigation to offset this fragmentation need to be added to the DEIS and technical appendix.

Bird Collision or Electrocution

"...guidelines described in ...1981 report..."

The guidelines BPA will use need to be described in the DEIS in sufficient detail for reviewers to evaluate their effectiveness. Also, more current techniques than from 1981 need to be reviewed and used to hazard-proof the lines from collision and electrocution, especially by raptors. A complete discussion of this issue needs to be included in the DEIS and technical appendix so reviewers can evaluate whether the methods will be effective.

A discussion of the possibility of placing perches in safe locations and barriers to perches in unsafe location on the towers should be included in the DEIS and technical appendix.

A complete discussion of proposed methods to minimize bird collision with ground cables should be included in the DEIS and technical appendix.

A monitoring program to evaluate the effectiveness and longevity of the techniques to minimize/avoid both electrocution and collision should be included in the DEIS and technical appendix, with adaptive management provisions to change the procedures in case of a pre-determined level of mortality.

Disturbance of Wildlife

"Prior to construction, verify that no new bald eagle nests have been constructed in the project area. If any are found, avoid construction within 2,600 feet of the nest during the nesting period."

The project area, defined as only that area within 0.25 mile, or 1,320 feet, of the ROW, is insufficient to guarantee that no eagle nests will be disturbed by construction. A minimum of 2,600 ft on either side of the ROW will need to be surveyed for nests. The survey methodology needs to be included in the DEIS and technical report.

Nests of other species should also be considered in the DEIS and technical appendix..

"Plan flight paths for helicopters..... do not fly over potential nesting habitat for either northern spotted owls or marbled murrelets in the project vicinity..."

"Project vicinity" needs to be defined in the DEIS and technical appendix.. Also, species other than the three mentioned also need to be considered in this section.

4.1.2.1. Alternative 1

"...Alternative 1 would result in low-level impacts on forest community dependent species."

Low elevation late successional habitat is extremely uncommon in the entire Puget lowlands. 86 acres of the 120 forested acres to be cut is in the "conifer forest – late" class, i.e., 18 –36 inch dbh trees. These habitat patches in CRW will likely develop late successional habitat characteristics over the term of the HCP, which will make this functional habitat for late successional/old growth dependent species. Given the paucity of late successional habitat at low elevation, this proposed habitat conversion will have a significant future impact. The impact cannot be dismissed as low-level. The DEIS and technical appendix should acknowledge this and reclassify this impact as moderate and commit to appropriate and effective compensatory mitigation.

"Because this vegetation removal could result in a loss of productivity in adjacent aquatic habitat but could also be largely mitigated by spanning riparian corridors, this would represent a moderate to low level impact."

This paragraph is inherently contradictory. It states that 10 ac of forested riparian habitat will be removed, yet it also says that this removal is mitigated by spanning riparian corridors. The removal of 10 ac of riparian habitat is a permanent habitat loss, for which compensatory mitigation should be required. Simply not removing all riparian vegetation is not adequate mitigation. The DEIS and technical appendix should acknowledge this and commit to effective compensatory mitigation.

Mitigation

It is confusing that most of the mitigation proposals listed here are simply a repeat of those already listed in 4.1.1.2 as common to all alternatives. It would be clearer if the DEIS and technical appendix listed only additional mitigation specific to each alternative.

"Minimize soil disturbance within or adjacent to wetlands and stream banks to the extent possible."

The term "extent possible" should be quantified in the DEIS and technical appendix, and should include methods for minimizing soil disturbance described. In areas where soil disturbance cannot be minimized, adequate compensation mitigation should be provided and described.

"Mitigation measures to minimize or reduce potential impacts to species dependent upon early seral habitats: Create snags along edges..."

How many snags will be created? What diameter and height of trees will be used? What methods will be used to create the snags? The DEIS and technical appendices need to provide these specifics so reviewers can adequately evaluate the efficacy of the proposal.

4.1.3.1 Access Roads Impacts

"A portion of this clearing would coincide with clearing for the transmission ROW and so is not additive."

Reviewers need to know exactly how many acres will coincide with clearing the ROW and how many will be additional in order to evaluate the impact of total cleared area. In addition, habitat converted to road (impervious surface, no vegetation) is not equivalent to habitat converted to grass/forb/shrub, so needs to be compensatorily mitigated separately.

4.1.3.2 Mitigation

"Avoid building new roads within or adjacent to wetlands."

Is this a firm commitment to building no roads in wetlands or their buffers? If so, the DEIS and technical appendix should clarify this commitment and define buffer width. If this is not a commitment, then the area of road estimated to be built in wetlands, which wetlands will be impacted, and the appropriate compensation mitigation should be included in the DEIS and technical appendix.

4.1.5 Cumulative Impacts

"Within the CRW, vegetation removal and thus habitat alteration is expected to be minimal, as described in the HCP (City of Seattle 1998, 2000). For this reason, clearing associated with the proposed project would be the greatest foreseeable impact in this portion of the project area. The HCP also outlines plans to close certain roads within the CRW, which could potentially mitigate impacts from proposed new access roads that would be constructed in conjunction with the proposed project."

Habitat is dynamic and is constantly changing. The DEIS does not consider how the habitat in the CRW will change over time. The road decommissioning program in the CRW HCP can be viewed as mitigation for past road-building projects in the CRW, and should not be used as mitigation for a BPA project. BPA must mitigate for their own impacts, and cannot use commitments of landowners in parts of the project area as mitigation for BPA's actions. The DEIS and technical appendix should explicitly acknowledge this circumstance and should omit this statement.

5.3.2 Cedar River Watershed Habitat Conservation Plan

"The CRW HCP (City of Seattle 1998, 2000) was prepared by SPU to establish a comprehensive management plan for long-term management of the CRW. The HCP includes numerous provisions intended to maintain the quality of wildlife habitat and the health of wildlife populations in the CRW. Objectives of the HCP include meeting the legal requirements of the ESA, contributing to the conservation of unlisted species as appropriate, providing a net benefit over current conditions to both listed and unlisted species, and developing conservation strategies for at-risk species and their habitats."

The DEIS and technical appendix should explicitly acknowledge the CRW HCP regulating agencies (e.g. USFWS, NMFS) and the fact that the proposed action not a "covered activity" under the HCP.